UNIVERSITY OF LOUISIANA AT LAFAYETTE

CHEMISTRY 233

Instructor: Dr. A. Gallo

Office MY 137; Labs MY 235 and 246

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Text: Experiments in Organic Chemistry by R.K. Hill & J. Barbaro

3rd edition, Contemporary Publishing Co.

Attendance: You will need to attend all the laboratories. Generally, there are no make-up labs, especially in the summer semester. If you miss a lab, report to your instructor upon returning with a valid excuse.

General: By the second lab meeting, you must have the following items:

- 1. A lab text
- 2. A permanently bound lab record book
- 3. Safety glasses
- 4. Paper towels and detergent

Laboratory sessions start on time and we try to finish on time, but there are cases when an experiment requires us to go past the normal operating time (by a few minutes). All equipment should be off the bench top and your locker should be locked when you leave the lab. Keep your area clean. Your need to be able to make efficient use of your laboratory time, so it is important that you understand the experiment before the lab begins.

Safety is our number 1 concern in the lab. You must obey all safety rules, take the safety quiz and sign the safety commitment sheet before being formally admitted to the lab. These rules and regulations will be discussed on the first lab day. No horse play, eating or drinking is allowed in the lab.

Grading System: There will be several quizzes throughout the semester which normally are given at the start of the lab. Your instructor will inform you of the quiz date and the topics that will be covered on the quiz. Your overall grade will be determined as follows:

Quizzes-----35% Experiment----55% Notebook-----10%

The standard grading scale of the university will be in effect:

A----90-100% B----80-89% C----70-79%

D----60-69%

F----Below 59%

A preliminary grade will be assigned using the above grading scale. This instructor reserves the right to lower the grade by one level if the student has continually been tardy, destructive and mean-spirited to his peers. The student will have been for warned that this is going to happen to him or her.

NOTEBOOK: The following information should be a part of your notebook:

Page 1: Title Page with your name, address, course title, number, section number, room number, day and time of class, instructor's name. The date of the first and last entry should be recorded.

Pages 2 & 3: Table of contents

Experiment # Date Title of Experiment Pages

Record for an experiment:

TITLE------all experiments
PURPOSE------all experiments
PROCEDURE-----all experiments
MAIN REACTION------synthetic experiments
MECHANISM------synthetic experiments
OBSERVATIONS/DATA-----all experiments
PURIFICATION METHODS----synthetic experiments
RESULTS & CONCLUSIONS----all experiments

Chemistry 233- Organic I Laboratory

Week 1: Safety and check in

Week 2: Techniques- Melting Point analysis

Week 3: Techniques- Recrystallization

Week 4: Techniques- Extraction

Week 5: Techniques-Thin Layer Chromatography

Week 6; Techniques- Extraction of a mixture using acid-base chemistry

Week 7; Techniques- Distillation

Week8: Synthesis- Dehydration of Cyclohexanol to Cyclohexene

Week 9; Oxidations

Week 10: Oxidation of Cyclohexanol to Cyclohexanone

Week 11: Substitution Reactions

Week 12: Synthesis of 1-bromobutane from 1-butanol

Week 13: Final and Check Out